

## CLAIMS:

1. An electro-acoustic transducer (1) having sound-generating means (38) and having a circuit unit (23), which circuit unit (23) has a circuit substrate (30) and at least one circuit component (31) of a signal-processing circuit, which circuit component (31) is mounted on the circuit substrate (30), wherein the sound-generating means (38) are annular in form and surround an interior space (22), which interior space (22) is accessible from outside the sound-generating means (38) when the transducer (1) is being manufactured and before the circuit unit (23) is fitted, and wherein the at least one circuit component (31) is arranged in the interior space (22) in the sound-generating means (38) and forms a communication circuit (31B) of a communication partner device (37) for contactless communication.
2. An electro-acoustic transducer (1) as claimed in claim 1, wherein only a single circuit component (31) is provided that is formed by an integrated circuit (31) connected to the circuit substrate (30), which integrated circuit (31) forms the communication circuit (31B).
3. An electro-acoustic transducer (1) as claimed in claim 1, wherein the integrated circuit (31) is embedded in a plastics encapsulation (33), wherein two connecting contacts (34), each of which is connected to a moving-coil contact (25) of a moving coil (29) belonging to the sound-generating means (38), are provided on the plastics encapsulation (33), and wherein the moving coil (29) is intended and used, in addition, as a contactless transmission means of the communication partner device (37).
4. An electro-acoustic transducer (1) as claimed in claim 1, wherein the sound-generating means (38) have a diaphragm (8), and wherein four contact terminals (36), each in the form of a sector of a circular annulus, are provided on a face (35) of the circuit substrate (30) that is remote from the diaphragm (8).

5. An electro-acoustic transducer (1) as claimed in claim 1, wherein the circuit unit (23) is arranged to be removable without the use of a separate tool.

6. An electro-acoustic transducer (1) as claimed in claim 1, wherein the  
5 transducer (1) has a cup-shaped housing (3) whose height in the direction in which a transducer axis (2) is oriented is between 2 and 5 mm and whose diameter perpendicular to the direction in which the transducer axis (2) is oriented is between 6 and 20 mm.